

**Chapter 131: CUTBACK ASPHALT AND EMULSIFIED ASPHALT**

SUMMARY: This regulation establishes requirements for the ~~applies to the~~ mixing, storage, use and application of cutback and emulsified asphalts.

1. **Scope.** This regulation applies statewide. ~~shall be applicable in all ambient air quality control regions in the State of Maine.~~

2. **Definitions**

- A. **Asphalt.** "Asphalt" means a dark-brown to black solid, liquid or semisolid cementitious material (solid, semisolid, or liquid in consistency) of which the main constituents are composed primarily of bitumens that occur naturally or are obtained as a residue of petroleum refining.
- B. **Cutback Asphalt.** "Cutback asphalt" means asphalt ~~cement~~ that has been liquefied by blending with a diluent of petroleum solvents (diluent) or any other diluent that contains VOC. ~~Upon exposure to atmospheric conditions, the diluents evaporate, leaving the asphalt cement to perform its function.~~
- C. **Emulsified asphalt.** "Emulsified asphalt" means an emulsion of asphalt ~~cement~~ and water that contains a small amount of an emulsifying agent; it is a heterogeneous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.
- ~~D. **Medium Curing Cutback Asphalt.** "Medium curing cutback asphalt" means a material which meets the specifications of the American Association of State Highway and Transportation Officials (AASHTO) designation M82.~~
- E. **Penetrating prime coat.** "Penetrating prime coat" means an application of low viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. ~~The prime coat penetrates the base, plugs the voids, and hardens and helps bind the top to the overlying asphalt course. The penetrating prime coat also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement.~~

3. **ProhibitionsStandards**

- A. On or after May 1, 2010, no person shall use or apply, during the period May 1 through September 15, cutback asphalt or emulsified asphalt, unless:
- (a) The asphalt contains no greater than 0.1 percent VOC by weight; or
  - (b) The asphalt produces no greater than 6.0 milliliters of oil distillate, in accordance with ASTM Method D244, Standard Test Methods and Practices for Emulsified Asphalts, or AASHTO T59, Standard Method of Test for Testing Emulsified Asphalts, or ASTM Method D402, Standard Test Method For Distillation of Cutback Asphaltic Products, or AASHTO T78, Standard Method of Test for Cutback Asphaltic Products, all as incorporated herein by reference. ASTM Method D244 and D402 are available from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post

Office Box C700, West Conshohocken, Pennsylvania 19428-2959, or from its website [www.astm.org](http://www.astm.org). AASHTO T59 and T78 are available from the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street N.W., Suite 249, Washington, DC 20001, or from its website [www.transportation.org](http://www.transportation.org).

~~A. Cutback asphalt shall not be used in the paving and maintenance of public roads and highways during the period May 1 through September 15 with the following exceptions:~~

- ~~(1) The use of medium curing cutback asphalts solely as a penetrating primecoat for aggregate bases prior to paving;~~
- ~~(2) The use of medium curing cutback asphalts for the manufacture of long term storage or stockpiling of patching mixes used in pavement maintenance;~~
- ~~(3) The use of cutback asphalts for which the user has demonstrated to the Department that minimal emissions shall occur under conditions of normal use. An acceptable demonstration of minimal emissions shall be the submittal to the Department of distillation test data (ASTM Method D 402, Distillation of Cutback Asphalt Products) showing less than 5% of the total solvent has evaporated up to and including 260 degrees C. (500 degrees F.).~~

~~B. Emulsified asphalt used in the paving and maintenance of public roads and highways shall contain no petroleum solvents except for uses and with maximum solvent contents (MSC) as demonstrated with the American Society for Testing Materials (ASTM) D 244-89 Standard Test Methods for Emulsified Asphalts as follows:~~

- ~~(1) For use as seal coats, the MSC shall be 3%;~~
- ~~(2) For use as chip seals when dusty or dirty aggregate is used, the MSC shall be 3%;~~
- ~~(3) For use as seal coats or chip seals when good particle coating cannot be attained with emulsions containing 3% or less solvent, by weight, when tested according to the American Society for Testing Materials (ASTM) D 244-89 "Standard Test Methods for Emulsified Asphalts", Coatability Test, Sections 52 through 57, by the Maine Department of Transportation (MDOT) or an independently owned laboratory designated by the MDOT, the MSC shall be 5%;~~
- ~~(4) For use as mixing with open graded aggregate that is not well washed, the MSC shall be 8%; and~~
- ~~(5) For use as mixing with dense graded aggregate the MSC shall be 12%.~~

4. **Recordkeeping.** The owner or operator of any facility subject to this regulation shall maintain records of the manufacture, mixing, storage, use or application of any asphalt containing volatile organic compounds (VOC) during the period May 1 through September 15. These records shall be available for inspection during normal business hours and copies shall be provided to the Department and/or E.P.A. upon request. All records must be maintained at the company's main headquarters for a period of 6 years.

**5. Compliance Schedule.** ~~The owner or operator of a source subject to this regulation shall achieve final compliance with this regulation on or before January 1, 1994.~~

AUTHORITY: 38 M.R.S.A., Section 585-A

EFFECTIVE DATE: February 10, 1993

Amended:

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### **BASIS STATEMENT**

In Maine, nine counties are classified as nonattainment for the federal ozone air quality standard. Cutback asphalts and some emulsified asphalts contain VOC, which are precursors to ground-level ozone formation.

This cutback and emulsified asphalt regulation restricts the VOC content of emulsified asphalts and restricts the use of cutback asphalts. Under Section 184 of the Clean Air Act Amendments of 1990, the State must submit plans to control VOC emissions from all sources covered by a Control Technique Guideline (CTG) issued before November 15, 1990.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.

### **BASIS STATEMENT OF AUGUST 20, 2009**

These amendments are part of the Department's effort to satisfy the RACT requirements mandated under the CAA and regulations related to the 1997 8-hour ozone NAAQS. As part of its 8-hour ozone RACT review, the Department has determined that the existing asphalt paving regulation no longer constitutes RACT under the 8-hour ozone standard.

These amendments limit the use of cutback asphalt and emulsified asphalt during the period May 1 through September 15 to that which produces not more than 6.0 milliliters of oil distillate or contains no greater than 0.1 percent VOC by weight, as determined using the American Society for Testing and Materials Methods or American Association of State Highway and Transportation Officials Methods. The rule applies to all asphalt paving activities.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.